



UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/446,373 07/11/00 CALL

H 21373.003

KARL S SAWYER JR
KENNEDY COVINGTON LOBDELL & HICKMAN
BANK OF AMERICA CORPORATE CENTER
100 NORTH TRYON STREET SUITE 4200
CHARLOTTE NC 28202-4006

HM12/0720

EXAMINER

GUTTMAN, H

ART UNIT

PAPER NUMBER

1651

DATE MAILED:

07/20/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/446,373

Applicant(s)

CALL, HANS-PETER

Examiner

Harry J Guttman

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 38-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Status of the Claims

Claims 1-49 are pending.

Election/Restrictions

Applicant's election with traverse of Group I in Paper No. 9 is acknowledged. The traversal is on the ground(s) that (1) there is a single general inventive concept linking the inventions and (2) a search of one group would necessarily entail a search of the others posing no burden for search of the additional groups. This is not found persuasive because as clearly stated in MPEP Annex B section (e) page AI-37, Unity of Invention extends only to a single independently claimed method of use from an independently claimed product. While burden to search is not a consideration in a national stage entry of a PCT, generally, an overlapping search is not a coextensive search and burden in examining materially different groups having materially different issues also exists.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-37 are examined on their merits insofar as they are examinable.

Priority

It is requested that the first line of the first page of the specification indicate that the instant application is a 371 of the earlier filed PCT application, as follows.

This application is a 371 of PCT/DE98/01689, filed June 19, 1998, which claims priority to German application Serial No.197 26 323.2, filed June 20, 1997.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
The residence and Post Office Address are not legible.

Claim Objections

Claims 5-37 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should depend on other claims in the alternative only and cannot depend from any other multiple dependent claim. See MPEP § 608.01(n).

Claims 5-8, 10, 12, 13, 15-25, 27 and 31-37 are examined as if they depend on claim 1.

Claim 9 is examined as if it depends on claim 8.

Claim 14 is examined as if it depends on claim 10.

Claim 26 is examined as if it depends on claim 25.

Claims 28-30 are examined as if they depend on claim 21.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Generally, **the claims are replete with indefinite claim language**. Applicant is urged to carefully modify the claims to conform to legal claim language.

The preamble of claim 1 (and many of its dependents) uses the phrase "component system". It is unclear if this system is in the same solution or consists of solutions in separate containers. Clarification is required.

Claims 1, 11, 15, 21, 22, 23, 25, 26, 31, 32, 33, 34, 35, 36 and 37 use "and/or" in a markush group; this is improper markush language. One example of correct markush language begins with "is selected from the group consisting of", which is followed by the list of elements, and ends with a single "and" just before the last element in the list. Also there is a comma missing between "3.1.3" and "3.1.4". Correction is required.

In claims 1, 4, 5, 9, 10, 11, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 30, 31, 32, 34 and 35 the phrases "preferably", "such as" or "for example" render the claims indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Correction is required.

Claim 4, 5, 35 and 36 recite "and other sources" or "and others". These claims are indefinite because it is not clear to what sources this refers. Correction is required.

Claim 1 step c) states an "oxidant precursor for reaction with the enzymes". It is unclear how the enzymes of step a) (which are not oxidases) could react with an oxidant precursor. Clarification is required.

Claim 1 step d) states a "ketone from the group of carbonyl compounds". It is unclear what this means, since all ketones are from the group of carbonyl compounds. Clarification is required.

Claims 2-30 uses the phrase "characterized in that". This is indefinite because it is unclear if the claim refers to properties of the object or the actual object itself. Correction is required.

Art Unit: 1651

Claims 4 and 26 should italicize the microorganism names. Correction is required.

Claims 31-37 provide for the use of the composition of claim 1, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 21-37 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim 6 lacks antecedent basis because it is broader than its parents. Correction is required.

Claim 7 lack antecedent basis because it recites modified enzymes, enzyme constituents etc... These were not described in the parent claims. Correction is required.

Several claims use the extension "etc" (e.g., claims 10, 34 and 35). This is improper since this phrase does not clearly set the metes and bounds of the claim. Correction is required.

Several claims use the phrase "it is possible" (e.g., claims 21 and 22). This is improper since the phrase does not clearly set the metes and bounds of the claim. Correction is required.

Claims 7 and 27 cite "catalysts". It is not understood to what this refers, and, as such, this claim is not considered further.

Claim 15 adds a limitation to the composition by altering the applied pressure. Since this does not alter the composition, it is improper. Correction is required.

Claims 13, 18, 20-26, 28-30 and 36 add additional components to claim 1. This is improper because claim 1 cites the four component system in closed language (i.e., "consisting of"). These claims therefore lack antecedent basis.

Claims 34 and 35 lack antecedent basis because they include post-processing steps.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1, 2, 4-6 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Baillely et al. (WO 96/06148). Baillely et al. (WO 96/06148) disclose a detergent composition containing lipase from *Pseudomonas sp.* (page 5) and amylases (page 21-22), a number of fatty acids (pages 9, 10 and 28), bleaching precursors including NOBS and TAED (pages 37-39), and ketones present in the polymeric dispersing agents (page 31).

Claims 1, 2, 4-6 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Gordon et al. (US5719112). Gordon et al. (US5719112) disclose a dishwashing composition containing lipase from *Pseudomonas sp.* and amylases (column 1 lines 50-68 and column 6 lines 20-39), ketones and fatty acids as foam depressors (column 6 lines 1-5), and bleach agents/activators including TAED and SNOBS (column 5 lines 25-40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-16, 18-26, 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baillely et al. (WO 96/06148) and Gordon et al. (US5719112) in view of Damhus et al. (WO 90/00188), Damodaran et al. (US 5976859) and Margolin et al. (US 6140475).

The disclosures of Baillely et al. (WO 96/06148) and Gordon et al. (US5719112) are given above. Neither reference disclose the use of amidase or nitrilase enzyme as enzymes for use in detergents.

Damhus et al. (WO 90/00188) disclose a detergent comprising an amidase (page 2 lines 1-13), oxidant precursors (page 2 lines 22-28), a fatty acid, and lipases (page 3).

Damodaran et al. (US 5976859) disclose a detergent comprising protease Q (an amidase) (column 6 lines 25-32), lipases (column 7 lines 1-3), foam regulators, and bleaching precursors (column 7 lines 6-16).

Margolin et al. (US 6140475) disclose the use of nitrilase and lipases in a detergent composition (column 6 lines 42-60).

Thus, one of ordinary skill in the art would have been motivated to substitute the nitriliase or amidase enzyme for lipase in the claimed detergent/bleaching solution

because nitrilase and amidase were known, at the time the invention was made, for their use in detergent and bleaching solutions.

It is well known that it is *prima facie* obvious to combine two or more ingredients each of which is taught by the prior art to be useful for the same purpose in order to form a third composition which is useful for the same purpose. The idea for combining them flows logically from their having been used individually in the prior art. *In re Pinten*, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); *In re Sussman*, 1943 C.D. 518; *In re Susi*, 58 CCPA 1074, 1079-1080; 440 F.2d 442, 445; 169 USPQ 423, 426 (1971); *In re Crockett*, 47 CCPA 1018, 1020-1021; 279 F.2d 274, 276-277; 126 USPQ 186, 188 (1960).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Claims 1-6, 8-16, 1826, 28-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaaret (US 5478356) in view of Lee et al. (WO 92/13993) and Francis et al. (WO 94/18386).

Kaaret (US 5478356) discloses compositions to be used in wood pulp bleaching column 3 lines 50-55). Kaaret discloses the combination of sodium peroxide and oxidant precursors (column 8 lines 50-61), metal sequestering agents including EDTA

Art Unit: 1651

and STPP (column 9 lines 7-20), lipases and proteases (column 9 lines 35-50), lauric acid (column 11 line 66), and ketones and nitrilamines (column 4 lines 1-67). These compositions are to be used at a pH of greater than 7.5.

Kaaret does not disclose the exact conditions and concentrations of the components described in claims 31-37.

Lee et al (WO 92/13993) discloses the combination of ketone at greater than 4% (page 4), oxygen donors (0.9%) (page 4, example 1), chelating agents (e.g., EDTA) at 0.1-3.0% (page 5), the solution is to be at a pH of 6-14 and with a pulp consistency of ~3-35%. The incubation temperatures and times, and component concentrations were varied over wide ranges and encompassed the claimed conditions (see examples 1-47).

Francis et al. (WO 94/18386) discloses the use of ketones to aid in delignification (page 7).

Thus, one of ordinary skill in the art would have been motivated to optimize the conditions and exact concentrations to give the expected result of optimizing delignification and bleaching of wood pulp.

Further, it is well known that it is *prima facie* obvious to combine two or more ingredients each of which is taught by the prior art to be useful for the same purpose in order to form a third composition which is useful for the same purpose. The idea for combining them flows logically from their having been used individually in the prior art. *In re Pinten*, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); *In re Sussman*, 1943 C.D. 518; *In re Susi*, 58 CCPA 1074, 1079-1080; 440 F.2d 442, 445; 169 USPQ 423, 426

Art Unit: 1651

(1971); *In re Crockett*, 47 CCPA 1018, 1020-1021; 279 F.2d 274, 276-277; 126 USPQ 186, 188 (1960).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

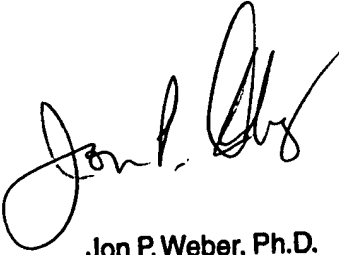
Additional references not cited in this action have been listed in PTO-892 to establish the state of the art.

Any inquiry concerning this communication should be directed to Harry J. Guttman, Ph.D. at telephone number (703) 305-0159. The examiner can normally be reached during the hours of 07:30 to 16:00 Eastern Time, Mon.-Thurs. If attempts to reach the examiner by telephone are unsuccessful, a message may be left on the voice mail. The fax number for Art Unit 1651 is (703) 308-4242 or 305-3014. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196. My supervisor, Michael Wityshyn, may be contacted at (703) 308-4743.

All internet e-mail communications will be made of record in the application file. PTO employees will not communicate with applicant via internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified or exchanged unless there is of record an express waiver of the confidentiality requirements of 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy published in the Patent and Trademark Office Official Gazette on 25 February 1997 at 1195 OG 89.

H.J.G. 19 July 2001

Harry J. Guttman, Ph.D.
Examiner, 1651
harry.guttman@uspto.gov



Jon P. Weber, Ph.D.
Primary Examiner